

W Claim:

1. A phacoemulsification cannula comprising:
a hub for engagement with a surgical instrument;
an elongated needle having a proximal end attached to the hub and a
distal end; and
the needle having a first and a second inner diameter wherein the first
inner diameter is larger than the second inner diameter and
wherein a transition from the first inner diameter to the second
inner diameter is closer to the proximal end than to the distal
end.
2. The needle of claim 1, wherein the transition includes a radius.
3. The needle of claim 1, wherein the transition includes a conical
surface connecting the first and second inner diameters.
4. The needle of claim 1, wherein the transition includes at least one
additional inner diameter stepped between the first and second inner
diameters wherein the additional inner diameter is smaller than the
first inner diameter and larger than the second inner diameter.

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5. A phacoemulsification needle comprising:
an elongated needle having proximal and distal ends, wherein the
proximal end is structured for attachment to a surgical
instrument; and
the needle having a first and a second inner diameter wherein
the first inner diameter is larger than the second inner diameter
and wherein a transition from the first inner diameter to the
second inner diameter is closer to the proximal end than to the
distal end.
 6. The needle of claim 5, wherein the transition includes a radius.
 7. The needle of claim 5, wherein the transition includes a conical
surface connecting the first and second inner diameters.
 8. The needle of claim 5, wherein the transition includes at least one
additional inner diameter stepped between the first and second inner
diameters wherein the additional inner diameter is smaller than the
first inner diameter and larger than the second inner diameter.

- (7)
9. A phacoemulsification cannula comprising:
- an elongated needle having proximal and distal ends, wherein the proximal end is structured for attachment to a surgical instrument,
- a first bore within the cannula extending from the distal end toward the proximal end;
- a second bore within the cannula extending from the proximal end to the first bore;
- wherein the second bore has a smaller diameter than the first bore and is of sufficient length to provide a desired pressure drop during use across the length of the second bore and wherein an intersection of the first and second bores is nearer the proximal end than the distal end.
10. The needle of claim 9, wherein the transition includes a radius.
11. The needle of claim 9, wherein the transition includes a conical surface connecting the first and second inner diameters.

12. The needle of claim 9, wherein the transition includes at least one additional inner diameter stepped between the first and second inner diameters wherein the additional inner diameter is smaller than the first inner diameter and larger than the second inner diameter.